

## Meet your specific water quality standards

TOC 9220 - PROCESS TOTAL ORGANIC CARBON ANALYZER





Improved process control - Optimize coagulation and flocculation of raw water and maintain total organic carbon removal targets.



Multi-stream capability - Monitor up to four process streams on a single analyzer at no additional cost.



Robust Design - Housed in a waterproof enclosure to operate in the harshest conditions.



Low cost of ownership

## Reliable data for regulatory compliance and process control

The 9220 Online TOC Analyzer, developed from over 50 years of TOC experience, provides unmatched performance, reliability, ease of use, and low cost of ownership to meet your specific water quality standards.











## Technical Data

Model	9220 Online TOC
Performance	
Operating Principle	Heated sodium persulfate oxidation
Measurement Technique	Non-dispersive infrared (NDIR) detection
Regulatory Method Compliance	USEPA 415.3 (source water & drinking water); SM 5310C (water & wastewater)
Measurement Range	0 to 25 ppm (standard); adjustable up to 100 ppm
Measurement Accuracy	±5 %
Measurement Precision	2 % RSD
Limit of Detection	0.015 ppm
Sample Processing/Analysis Time	5 to 9 minute intervals
Sample Processing Ports	6 (included)
Sample Processing Valve Controls	4 (included)
Sample Processing Valves	Up to 4 (optional)
General	
Operator Interface	7" WSVGA display with a capacitive touchscreen (Windows® CE-based)
External Dimensions (Enclosure)	58.5cm H x 55.9cm W x 25.4cm D (23in H x 22in W x 10in D)
Mounting Dimensions (Panel w/ reagent tray)	113.7cm H x 55.9cm W x 28cm D (44.75in H x 22in x 11in D)
Certifications	IEC 61326-1, IEC 61010-1, cETLus (ETL and CSA Standards)
Instrument Enclosure Certifications	IP66; NEMA 4
Weight	Analyzer: 16.6 kg (36.5 lbs) Analyzer, panel w/ reagent tray, PGM, and full reagent containers: 44.4 kg (98 lbs)
Instrument Warranty	2 years
Reagents and Requirements	
Reagents Required	10 % sodium persulfate, 5 % phosphoric acid, DI water
Reagent Containers	5 l high-density polyurethane
Reagent Lifetime (Liquid)	Nominally 30 days at 77 °F (25 °C); 90 days at temperatures less than 39 °F (4 °C)
Sample and Gas Requirements	
Sample Flow Rate to Sample Inlet Device	50 to 1,000 ml/min when using Sample Inlet Device
Inlet Pressure	1 to 20 psig with Sample Inlet Device
Sample Temperature Range	41 to 113 °F (5 to 45 °C)
Gas Requirements (internally generated)	Process Gas Module (included); Consumption = $< 100 \text{ ml/min. } CO_2 \text{ free air}$
Power and Communication	
Power Requirements	100 to 240 VAC, 70VA, 50/60 Hz
Input Relays	2 (remote start, remote stop); 5A/30 VDC Max - potential free contact closure
Output Relays	2 (system alarm, sample alarm); 5A/30 VDC Max - potential free contact closure
Analog Outputs	4 (4 to 20 mA; user-configurable concentrations)
Digital Outputs	RS-485/422 Modbus RTU protocol or ASCII standard
Data Export	To PC via USB memory stick (Microsoft® Excel®-ready .csv file format)
Environmental	
Operating Temperature Range	41 to 113 °F (5 to 45 °C)
Humidity	Up to 90 % humidity (non-condensing)
Storage Temperature Range	41 to 113 °F (5 to 45 °C)

## Ordering Information

Model	Description	Order No.
TOC 9220	Online TOC Analyzer	860200

